



Northern Great Plains National Parks – Fire Management Standard Operating Procedures		Section: Fire Suppression	Revised: 2/13/2003	Number: 103
	Subject: Operation of the ATV-mounted electric-powered "drip torch"			Page: 1 of 2

- I. **Scope:** This SOP applies to the use of the ATV-mounted electric-powered "drip torch" that was acquired in January of 2000. It applies to the use of the device, fuel mixing, safety-checking, and operator qualifications.

- II. **Purpose:** To provide a safe and efficient working environment when using the device.

- III. **Procedure:**
 - **Training:** Each operator will be trained and certified by someone who is already qualified on the device.
 - **Fuel mixing:** The correct fuel mixture for the device is __??__% gasoline and __??__% diesel fuel. For the ____-gallon tank on the device, this translates into ____ gallons of gasoline and ____ gallons of diesel.
 - **Off road driving:** This will be governed by the specific regulations in each park, but generally driving more than a few feet away from a road or trail will be minimized. The Burn Boss will give direction on exactly where the ATV with the device should be given.
 - **Wind direction:** Great care will be practiced when igniting with the device when traveling *with* the wind.
 - **Becoming Trapped:** It would be possible, when igniting, to arrive at a barrier that the ATV would not be able to cross, such as a ditch or log. This could create a problem with fire blocking the only escape route. Before the use of the device, the operator should scout with the ATV the area proposed for ignition to determine safe and accessible routes. The operator will be vigilant to foresee possible entrapment sites. If the ATV does become entrapped, he or she shall not hesitate to abandon it and move into a safety zone.
 - **Cargo:** No additional flammable liquids will be carried on the ATV while operating the ATV drip torch device. For example, cans of torch mix and gasoline will not be carried in the cargo racks.
 - **Attaching the torch to the ATV**
 - -Place tank on the mounting platform found on the rear of the ATV.
 - -Rotate the tank backwards and take the ejector spring and attach it to the hook on the tank.
 - -Rotate the tank back to the flat position.
 - -Hold pressure on the tank and place the safety release pin through both holes in the tank and mounting platform.
 - -Connect the power supply to the tank via the plug in the back of the ATV.
 - -Remove the bolt in the back of the tank to mount the torch arm.
 - -Place the torch arm in between the brackets and replace the bolt and tighten the nut.
 - -Attach the fuel line from the tank to the line on the torch line.
 - -Fill the tank as you would a drip torch except make sure the engine to the ATV is off. Avoid spilling fuel on asphalt road ways.

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- **Torch Controls**--This torch has two different ways to put fire on the ground.
 1. Local This is when the torch fuel goes out the wand that is attached to the tank.
 2. Remote This is when the torch fuel flows through the metal cable to the “rat tail” which is trailing behind the ATV at the desired distance. This is good if you are lighting in flashy fuels where you want to be far away from the fire.

-There are two controls for the torch.

 1. The selector knob on top of the tank which selects between local, remote, and off for where the fuel is to flow.
 2. The power switch on the left handle bar which controls the power to the fuel pump.
- **Running the Torch**
 - Decide how you are going to burn: if you are going to burn using the local or remote fuel delivering methods, depending on what fuels you are in, etc. Turn the selector knob on top of the tank to the desired setting.
 - When you are inside of the burn unit ready to begin, switch the handle bar on and deliver fuel to the wick, soak the wick, and shut the switch off.
 - Light the wick when you are ready to commence your burn pattern. Turn the switch for the pump on and begin driving your pattern.
 - If you have a problem where you need to jettison the tank and torch, pull the emergency pull cord at the edge of the tank platform and the whole tank should fall off the back of the ATV.
- **Fire Extinguisher**—A fire extinguisher, 2 ½ lb. dry chemical or better, must be carried on the ATV on the front of the vehicle in an easily accessible location.

Things to Remember

- You will be a certified ATV rider and approved to run the torch.
- Have the permission of the Ignition Specialist and get approval for which firing method you plan to use.
- You now have fire behind you. Do not stop too long.
- Look ahead, you need to be able to get out of where you drive into. You may not be able to back out of a situation because of fire behind you.
- Stay within the burn unit if the wick is lit, even if there is still torch fuel in the fuel line which can flow out the end.
- Know your ignition pattern before you start and make sure the RXI-2, Burn Boss, others know it too. You do not want to trap folks in the interior of the burn. Stay in communications with all adjoining forces while burning.
- You can put a lot of fire on the ground in a short amount of time.
- Watch out for obstacles in your path. You do not want to get high centered on an obstacle and be unable to get off of it.